



CARLISLE ENERGY TASK FORCE

Town of Carlisle, Massachusetts, MA 01741

Carlisle is a 'Green Community' of Massachusetts

MINUTES OF MEETING: 3rd April 2019 at 7.00pm Town Hall

Present: Debbie Bentley, Basu Sarkar, Bob Zogg, Bil Risso,

Absent: , Helen Young, Dan Cook. Bob Clarke

Other Attendees: Jonathan DeKock, Claude Von Roesgen, Alan Lewis

Bob Zogg called the meeting to order at 7.06pm.

It was agreed that the meeting can be live streamed on You Tube.

Minutes for March meeting were approved as amended unanimously.

Current Business

	Discussion	Action
1	Green Communities Grant Projects	
A	De Strat Fans: 2 bids from Guardian ; as submitted \$24 275, hook up with the Building management system. \$33,484. (Attached at end.) This is more than the original quote. We need to request an Extension of time from Green Communities and a request to utilize leftover monies from other grants.	BR
B	Move that we ask Green Communities to transfer \$10,075 from the anti-idling project to the De Stratification project. Bill Risso proposes, Basu Sankar Seconded. Passed Unanimous	
C	Work to Spalding Building. Pressure sensor was fixed and then failed. School's subcontractor discussing who should pay for the replacement. Bill Risso has asked the contractor complete the work concurrently, with the sensor replacement.	BR
D	Town Hall 100% complete. Waiting for the invoice. The work should be linked in with the BMS. Bill Risso obtained a quotation for connecting the pumps to the BMS for \$2969.00.	
E	Move to ask the Selectmen to obligate \$2,969.00 from the FY 2019 Energy Task Force fund to pay for the BMS control tie at the Town Hall. Bill Risso proposes, Basu Sankar Seconded. Passed Unanimous	BR BZ
F	EV Chrging Station Ferns location option	



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<p>I</p> <p>li</p> <p>lii</p> <p>G</p> <p>H</p> <p>J</p>	<p>Claude passed on information from Al Windhorn: if we go forward on this site we must have a Mass DEP site engineer approve it. This will have a fee.</p> <p>Town Hall Parking Lot Option Selectmen approved location on 26th March. Historic District Committee meeting will be on Tuesday 10th.</p> <p>Vendors We are reviewing bids from Charge-point and Voltrex. We can subscribe for 3 years with the Grant. Eversource will cover the cost of the electrical installation to the base.</p> <p>We move to request an extension of Green Communities Grant contract from Green Communities through December 2019. Bill Risso proposes, Basu Sankar Seconded. Passed Unanimous</p> <p>Quarterly Report. Debbie Bentley to update the quarterly report for January- March send to Jon Metivier to submit to Green Communities on 4th April.</p> <p>Annual Report. Streetslights are in as a line item in DPW. Bill to finalize clarifications for report with Jon Metivier this week.</p>	<p>CVR/DB</p> <p>BZ</p> <p>DB</p> <p>BR</p>
<p>2</p> <p>A</p> <p>B</p> <p>C</p> <p>i</p>	<p>Municipal Solar Jonathan may need some help with Town Meeting presentation. He will reach out if it is required.</p> <p>Public input session on 2nd April. Some abutters had concerns. Transfer station viewed more as a beautification project.</p> <p>There are 3 articles for this issue in the warrant.</p> <p>Article 24: Update the Bylaw: 1 add the school to solar overlay district. 2. allow canopies on the solar overlays and limit height to 25ft. 3. Setbacks "unless abutting land is owned by the same owner.</p> <p>Motion: The ETF strongly recommend a yes vote on Article 24 as it will allow the town to generate renewable energy utilizing canopies. Bill Risso proposes, Debbie Bentley Seconded. Passed Unanimous</p>	<p>All</p> <p>BZ</p>



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ii	Article 25: Motion: The ETF strongly recommends a yes vote on Article 25 it will allow the town to generate renewable energy and generate income. Bill Risso proposes, Basu Sankar Seconded. Passed Unanimous	BZ
iii	Article 26: Paving of Parking at school: 32 years since it was paved. Logistically good time, as the parking lot black top will be cut during solar install. Motion: The Energy Task Force support Article 26 because combining construction projects, installing Solar Canopy and Paving, reduces the embedded carbon footprint of the projects and the covered parking will have an extended lifespan. Bill Risso proposes, Basu Sankar Seconded. Passed Unanimous.	BZ
3	Article 31: CCHS Parking: Motion: The Energy Task Force recommends a no vote on this warrant article because based on our review there has not been an adequate analysis of alternatives which may have a lower energy and carbon impact. Proposed :Debbie Bentley, seconded Bill Risso. Passed Unanimous	BZ
4	ETF Committee 2019-2020 Basu Sankar ,Bill Risso, and Bob Clarke, have informed Bob Zogg that they intend to resigned in June or thereabouts.. Dan and Helen have not attended meetings recently so need to confirm if it is still their intention to sit on the committee.	All
5	Heat Smart Update A Free Heat Smart Heat pump : In the end , none of Carlisle's residents who entered the drawing had suitable conditions. The free heat pump was opened up to the other towns and it has been offered to Codman's Farm, which is a non-profit. B Saturday June 8 th : Heat Pump, Weatherization, and Solar event at CCHS.	BZ
6	Long Term Goals Update: Draft report has been sent to the STF anf other interested parties for comment Presentation to BoS will be scheduled in late May or June.	BZ/ DB

Next Meeting 1st May at 7pm. **Meeting Adjourned** 9.09pm.



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DESTRATIFICATION FAN PROJECT ORDER FORM

Energy Audit Summary

There is an H&V serving the Corey Gymnasium which does not properly circulate heat down to the occupied floor level. There appears to be adequate heat for the space but it is stratified and remains at the ceiling.

Proposed Description

We propose to furnish and install (4) destratification fans with a centralized speed controller. There will be (1) personnel level space temperature sensor and (1) at approximately 20' elevation. When the space is in "Occupied" mode, the field controller will determine the differential temperature between the (2) sensors. On a call for heat, the controller will allow the fans to turn on and adjust speed until the differential is within a customer determined range. The reverse will happen when the range is tighter than needed. All power and control wiring is included.

Energy Savings Basis

The destratification fans will improve the circulation of conditioned air throughout the gymnasium. This will lower the overall conditioning load, and natural gas savings will result.



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FINANCIAL SUMMARY

Return on Investment Estimates	
Simple ROI Rate	4.3%
Payback Timeframe (years)	23.5
Total Cost Savings	\$1,035

Project Nat. Gas Savings Information	
Rate per Therm	\$1.071
Annual Therms Saved	983
Total Annual Cost Savings	\$1,081

Project Electric Savings Information	
Rate per kWh	\$0.183
Annual kWh Saved	-252
Total Annual Cost Savings	-\$46

SCOPE OF WORK DETAIL

Project Overview

- Furnish and install (4) ZOO H60 destratification fans, or equivalent
- Furnish and install variable speed controller
- Furnish and install power and control wiring
- Programming, startup, and test

Installation Notes and Requirements

- Customer understands that equipment installation may require shut down periods. For this project, we estimate **the total shut down duration will be approximately 4 days**. Our pricing assumes this work can be completed within a 1-week window, so it will be very important to schedule this project accordingly during the heating season or wait until the heating season has passed so there is no potential disruption to the occupants.



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March 27, 2019

Town of Carlisle
66 Westford Street
Carlisle, MA 01741
Attn: Energy Task Force

Project: G-6995 – Carlisle Corey Gymnasium Destratification Fans

Dear Carlisle Energy Task Force,

We are pleased to provide you with the following proposal for consideration. In reviewing the opportunity to improve the energy efficiency and reduce operational costs for your facility, we are proposing the attached retrofit measures for your consideration.

A summary of our recommended project from a financial perspective is listed below:

Measure Description	Estimated Annual Savings			Installed Cost	Estimated Incentive	Net Cost
	kWh Saved	Therms Saved	Total Savings			
Destratification Fans	-252	983	\$1,035	\$24,275	\$0	\$24,275

If you have any questions, or if you would like to discuss specifics, please contact me directly at (781) 853-3881. Thank you again for the opportunity to provide this proposal to you. We will look forward to working with you on this project.

Sincerely,
Dalton Kimball
Energy Efficiency Specialist, Municipal
Email: dalton@guardian-energy.com
Direct: (781) 853-3881



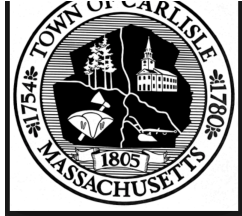


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CARLISLE ENERGY TASK FORCE

Town of Carlisle, Massachusetts, MA 01741

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MINUTES OF MEETING: 6th March 2019 at 7.00pm Town Hall

Present: Debbie Bentley, Basu Sarkar, Bob Zogg, Bil Risso, Bob Clarke

Absent: , Helen Young Dan Cook.

Attendee: Jonathan DeKock, Claude Von Roesgen, Launa Zimmario,

Bob Zogg called the meeting to order at 7.07pm.

It was agreed that the meeting can be live streamed on You Tube.

Minutes for February's meeting was approved as amended unanimously.

Current Business

		Discussion	Action
1	1	Master Planning. There were concerns about the cost of the masterplan and ensuring that the masterplan was used as a reference document in the following years. Motion: The Energy Task Force recommends that the Town of Carlisle develops a masterplan. Debbie Bentley proposed. Bob Clarke seconded. Voted to move unanimously.	
2	1	Green Communities Grants EVC charging Claude still waiting for the final signature from the owners of Ferns. The Historic District Commission refused to allow the overhead wires and wanted the power lines to go under the road. Due to the potential problems with the Ferns installation It was decided to submit a proposal to the Historic District Commission for an EVC at Town hall and work the two proposals in tandem, as a back-up plan.	CVR/DB
	2	On demand ventilation at the school. 85% complete Coordination with BMS needed.	BR
	3	De Stratification fans: final firm quote on Friday. Transfer funds between projects needs to be approved by Green Communities.	BR/BC
	4	Ant Idling is complete.	
	5	Town Hall: Valves have been changed. Should be complete by Friday. DCM should be connected to the BMS next week.	BR
	6	March Report: Debbie Bentley to prepare the updated report due at the end of March. She will obtain copies of the invoice payments from Pricilla Dumka.	DB



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FINANCIAL SUMMARY

Return on Investment Estimates	
Simple ROI Rate	3.0%
Payback Timeframe (years)	32.2
Total Cost Savings	\$1,035

Project Nat. Gas Savings Information	
Rate per Therm	\$1.071
Annual Therms Saved	983
Total Annual Cost Savings	\$1,081

Project Electric Savings Information	
Rate per kWh	\$0.183
Annual kWh Saved	-252
Total Annual Cost Savings	-\$46

SCOPE OF WORK DETAIL

Project Overview

- Furnish and install (4) ZOO H60 destratification fans, or equivalent
- Furnish and install variable speed controller
- Furnish and install power and control wiring, including connection to existing Metasys BAS
- Programming, startup, and test

Installation Notes and Requirements

- Customer understands that equipment installation may require shut down periods. For this project, we estimate **the total shut down duration will be approximately 4 days**. Our pricing assumes this work can be completed within a 1-week window, so it will be very important to schedule this project accordingly during the heating season or wait until the heating season has passed so there is no potential disruption to the occupants.



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March 27, 2019

Town of Carlisle
66 Westford Street
Carlisle, MA 01741
Attn: Energy Task Force

Project: G-6995 – Carlisle Corey Gymnasium Destratification Fans with BAS Control

Dear Carlisle Energy Task Force,

We are pleased to provide you with the following proposal for consideration. In reviewing the opportunity to improve the energy efficiency and reduce operational costs for your facility, we are proposing the attached retrofit measures for your consideration.

A summary of our recommended project from a financial perspective is listed below:

Measure Description	Estimated Annual Savings			Installed Cost	Estimated Incentive	Net Cost
	kWh Saved	Therms Saved	Total Savings			
Destrat Fans w/ BAS Control	-252	983	\$1,035	\$33,484	\$0	\$33,484

If you have any questions, or if you would like to discuss specifics, please contact me directly at (781) 853-3881. Thank you again for the opportunity to provide this proposal to you. We will look forward to working with you on this project.

Sincerely,
Dalton Kimball
Energy Efficiency Specialist, Municipal
Email: dalton@guardian-energy.com
Direct: (781) 853-3881

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